UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,670	08/18/2006	**Graham Alexander Robertson**	920602-103441	5045

23644 7590 11/04/2009

BARNES & THORNBURG LLP
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER	
HAGEMAN, MARK	

ART UNIT	PAPER NUMBER
3653	

NOTIFICATION DATE	DELIVERY MODE
11/04/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/584,670	ROBERTSON, GRAHAM ALEXANDER	
	Examiner	Art Unit	
	Mark Hageman	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-23 and 25-28* is/are rejected.

7)☒ Claim(s) *24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Examiner confirmed in a conversation with William Lee that the proper claims for examination were claims 15-28 submitted with a preliminary amendment dated 6-26-2009.

Claim Objections

Claims 15 and 25 are objected to for failing to comply 37 CFR 1.75(i) which states "where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation."

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. It is not clear what the term "alternate" means in the claim. For instance the broadest reasonable interpretation (which is treated herein) is that "alternate" means other and therefore the claim simply requires some of the ribs to not be reinforced. The other meaning would be that every other rib is not reinforced.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 15, 16, 19-23, 25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,759,000 to Cook in view of US 4,674,251 to Wolff and US 6,672,460 to Baltzer. Cook discloses a frame over which woven wire mesh is to be stretched and secured to form a sieving screen which can be used to screen solids from drilling mud recovered from down-hole when drilling for oil or gas comprising a rectilinear moulded plastics frame having edge regions (20) by which it is secured in place in a shaker and defining a plurality of rectilinear windows (figure 1) formed by an orthogonal array of intersecting ribs (14, 16) also of moulded plastics material at least some of which are internally reinforced by a structure comprising two spaced apart layers of orthogonal intersecting spaced apart wires (54, 56 c11 lines 40+), running parallel to the length and breadth of the rectilinear shape of the frame within the ribs to increase their rigidity (figure 1). Cook further discloses a flange 20 that is formed around the perimeter and to which the wires are all attached as shown in figure 3 and c11 lines 40+. Cook does not show the edge regions of the frame are reinforced internally by metal box-section members joined at their four corners and defining a perimeter reinforcement and the ends of the wires are secured to the box-section members. Wolff show a screen framed in which a combination of rectangular cross-

section plastic premouldings (9) and rectangular metal reinforcing rods (12) are assembled and then encased in a plastic material. The combination of the premouldings and the rods prevents shrinkage, and provides an adequately rigid screen that takes advantage of the wear properties of plastic materials (c2 lines 4+ and c2 lines 33+). Wolff does not explicitly disclose metal box-sections. Baltzer discloses, and it is well known in the art of screen frames, using metal box sections (c3 lines 41+) to form the perimeter of the frame. Such constructions are known to provide more rigid lighter weight frames then solid cross-section arrangements.

6. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have modified Cook to include a metal box-section frame as Wolff teaches that rigid embedded peripheral frames prevent shrinkage and provide an adequately rigid screen that takes advantage of the wear properties of plastic materials and metal box section frames are well-known and widely used to provide more rigid lighter weight frames then solid cross-section arrangements. The realization of these advantages would have been obvious to one or ordinary skill in the art at the time of the applicant's invention.

Re claim 16 the teachings of both Cook and Wolff recite encapsulating the entire support frame structure in a single plastic material.

Re claims 19-21 see Cook c1 lines 53-61, c2 lines 52-55, and c14 lines 32-36.

Re claims 22 and 23 see Baltzer showing square cross sections.

Re claim 25 see above.

Re claim 27 see Cook c4 lines 56+.

Re claim 28 see Cook c12 lines 21+.

7. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook, Wolff and Baltzer as applied to claims 15, 16, 19-23, 25, 27, and 28 above, and further in view of US 6,006,923 to Helmy. Cook, Wolff and Baltzer disclose all the limitations of the claim except alternate ribs are not reinforced with wires and the non-reinforced ribs only extend partway between the upper and lower faces of the frame. Helmy discloses a similar screening arrangement including alternate ribs are not reinforced with wires and the non-reinforced ribs only extend partway between the upper and lower faces of the frame (figure 2 and figure 4) as doing so allows for smaller screening openings while maintaining the desired rigidity (c2 lines 20+).

8. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have modified Cook, Wolff and Baltzer to include, the alternate nonreinforced shorter ribs, as taught by Helmy, to allow for smaller screening openings while maintaining the desired rigidity.

9. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over 5,950,841 to Knox in view of what is well known in the art. Knox discloses a framework for reinforcing a frame of plastics material over which woven wire mesh is to be tension and bonded to form a sieving screen, comprising two spaced apart layers of orthogonal intersecting spaced apart wires (34, 36), and a rectilinear bounding sub-frame of box section members joined at their four corners to which the ends of the wires are secured (figure 3). Knox does not explicitly disclose the wires running parallel to the length and breadth of the rectilinear shape of the frame and that the frame is made of metal. The orientation of the wire in Knox is immaterial as it is the spacing rather than the orientation that affects screening, furthermore it is well known to use metal box-sections (such as extruded shapes) to make screen frames.

10. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have modified Knox to include that specific orientation of the wire mesh and the orientation is not critical to the Knox device and one of a few standard orientations (aligned to the frame or inclined relative to the frame at 45 degrees) are standard practices in attaching screen mesh to frames. Furthermore the use of metal box-sections would have been obvious as it is well known and one of the most common materials of construction for screen frames.

11. Examiner notes that the language “for reinforcing a frame of plastics material over which woven wire mesh is to be tension and bonded to form a sieving screen” is intended use and functional in nature. This language does not provide and structural

limitation and the Knox structure is readily capable of being used in this manner. See MPEP 2114.

Re claim 26 Knox discloses the ends of the wires in one layer are secured to the upper face of the sub-frame members and the ends of the wires in the other layer are secured to the underside of the sub frame members (figure 4, c2 lines 55-62, and c3 lines 12-15).

Allowable Subject Matter

12. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to anticipate or render obvious the securing of the wires to the upper and lower faces of the perimeter reinforcement when taken in combination with the other elements of claim 15.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Hageman whose telephone number is (571) 272-3027. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
Supervisory Patent Examiner, Art Unit 3653

MCH